

Performance Evaluation of WiMAX-OFDM System over different SUI Channels

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Abstract –At present, telecommunication industries are highly concerned with the wireless transmission of data which can use various transmission modes, from point- to-multipoint links. It contains full mobile internet access. Various applications have already been applied so far using WiMAX, as alternative to 3G mobile systems in developing countries. The paper built a simulation model based on 802.16 OFDM-PHY baseband and demonstrated in different simulation scenarios with different modulation techniques; BPSK, QPSK, 16-QAM and 64-QAM to find out the best performance of physical layer for WiMAX Mobile. The Stanford University Interim (SUI) channel model under varying parameters is selected for the wireless channel in the simulation. The performance is recorded on the basis of BER, and SNR output through MATLAB Simulation.

Keywords –BER, OFDM, QAM, QPSK, SNR, SUI channel and WiMAX.